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NRC FINES CONNELL LTD. \$8,800  
FOR WORKER EXPOSURE INCIDENT

The Nuclear Regulatory Commission staff has proposed an \$8,800 fine against Connell Limited Partnership, of Tulsa, Okla., for violating safety rules for the use of industrial radiographic equipment.

This enforcement action stems from an incident on November 20, 1996, when a radiographer working for another company received a radiation dose in excess of the NRC's annual occupational limits while working at Connell's Yuba Heat Transfer Division in Tulsa. The affected worker received about 6.5 rem from the incident, exceeding the NRC's annual limit of 5 rem for an occupational worker. Rem is the unit of radiation dose, and measures the amount of energy deposited in human tissue. Normal background radiation from natural sources exposes everyone to about 0.3 rem per year. This exposure is not expected to result in any detectable health effects for the worker involved.

The workers were using industrial radiographic equipment at the Yuba Heat Transfer Div. of Connell in Tulsa. Industrial radiographic equipment utilizes radioactive sources to examine metal objects for cracks and flaws. A Connell radiographer left the radiation source unshielded when he left the job at the end of a shift resulting in the exposure to the worker from Tulsa Gamma Ray, Inc., who took over on the next shift. An alarm system designed to alert workers of high radiation in the area was not working at the time of the incident.

NRC regulations require that the area near radiographic equipment be manually surveyed after each use to make sure the source has returned to its shielded compartment. Radiographers are also required to read their pocket dosimeters, which record any radiation dose received. The Connell worker's failure to follow these procedures resulted in the overexposure.

The NRC rated the violations as a Severity Level II problem, which carries an \$8,800 base civil penalty. The NRC uses a four-level rating system, with Severity Level I being the most serious.

Connell has taken several steps to correct problems that led to the violations. The inoperable alarm system has been repaired and a back up system installed and the radiographer involved has received additional training.

NRC Acting Regional Administrator Jim Dyer said in a letter to Connell, "We recognize that Connell has a history of compliance with NRC requirements, and that the lapse in safety evidenced by these violations may be an isolated occurrence."

The fine is warranted because the violations resulted in an unnecessary radiation exposure and might have led to even more severe exposures had not the unshielded source been discovered when it was. Also, the exposure could have easily been prevented by following basic safety procedures, Mr. Dyer continued.

Connell must respond to the Notice of Violation in writing within 30 days. The response must document specific actions taken to prevent recurrence of the violations. During this time the company may pay the fine or file a protest.